

WHAT IS CLAIMED IS:

1. A fuel filter comprising a bag-shaped filter body that includes:

an outer layer that is made of nonwoven fabric; and

an inner layer that is made of filter paper and is connected to the outer layer and forms an inside layer of the filter body to remove debris included in fuel, wherein fuel passes through the filter body from the outer layer toward the inner layer.

2. The fuel filter according to claim 1, further comprising a mold section that is molded of resin, wherein the mold section is provided on an outer periphery of the filter body.

3. The fuel filter according to claim 2, wherein the mold section includes at least one connector to which an external device is connectable.

4. The fuel filter according to claim 1, further comprising at least one connector, to which an external device is connectable.

5. The fuel filter according to claim 4, wherein the external device is a sub-tank which receives the filter body.

6. The fuel filter according to claim 4, wherein the external device is a flange which covers an opening of a fuel tank which receives the filter body.

7. The fuel filter according to claim 1, wherein the filter paper of the inner layer includes resin fiber, pulp and non-organic fiber, and a content of the resin fiber is between 18% and 80% by weight in the filter paper.

8. A fuel feed apparatus, comprising the fuel filter according to claim 1 on a fuel suction side of the fuel feed apparatus.

9. A fuel filter provided on a fuel suction side of a fuel supply device, the fuel filter comprising:

a filter body that removes debris included in fuel;

a suction pipe section that connects between the filter body and the fuel supply device to conduct fuel from the filter body to the suction pipe section; and

a mounting unit that secures the fuel supply device to the filter body.

10. The fuel filter according to claim 9, wherein the mounting unit is provided along a longitudinal direction of the filter body.

11. The fuel filter according to claim 9, wherein the filter body includes:

an outer layer that is made of nonwoven fabric; and

an inner layer that is made of filter paper and is connected to the outer layer and forms an inside layer of the filter body to remove debris included in fuel.

12. The fuel filter according to claim 9, further comprising a mold section that is molded of resin on an outer periphery of the filter body.

13. The fuel filter according to claim 12, wherein the mold section includes at least one connector to which an external device is connectable.

14. The fuel filter according to claim 9, wherein a central axis of the fuel supply device, a central axis of the suction pipe section and a central axis of the mounting unit are all located in a single plane.

15. The fuel filter according to claim 9, wherein:

the mounting unit extends from the filter body toward the fuel supply device, and engages an engage section of the fuel supply device.

16. The fuel filter according to claim 15, wherein the mounting unit and the engage section engage with each other in an axial direction of the fuel supply device.

17. The fuel filter according to claim 9, further comprising an arm section that extends from the filter body toward the fuel supply device, and surrounds an outside of the fuel supply device in a peripheral direction of the fuel supply device.

18. The fuel filter according to claim 17, wherein the arm section has an inner periphery which engages with the fuel supply device in an axial direction of the fuel supply device.

19. The fuel filter according to claim 9, wherein the filter body and the fuel supply device are received in a fuel tank in which fuel is received.

20. The fuel filter according to claim 9, wherein:

the fuel supply device includes a fuel pump body;

the fuel filter is provided on a suction side of the fuel pump body; and

a longitudinal direction of the filter body is substantially perpendicular to the central axis of the fuel pump body.

21. The fuel filter according to claim 20, wherein the mounting unit includes a fitting section, which is provided on the filter body and engages with the fuel supply device.

22. The fuel filter according to claim 21, wherein:

the fuel supply device has a housing for receiving the fuel pump body; and

the housing has a claw which engages with the fitting section.

23. The fuel filter according to claim 20, further comprising:

a first member, in which the filter body is inserted, wherein the first member is provided around an opening which is formed in the filter body;

a second member that has:

a suction pipe section fitted to an inner periphery of the first member; and

a fitting section, which is provided radially outward of the suction pipe section; and

a third member that is connected with the second member via the first member and supports an inner side of the filter body.

24. The fuel filter according to claim 23, wherein:

the second member has a projecting section provided on an end of the suction pipe section which is located on an opposite side with respect to the fitting section; and

the projecting section radially outwardly projects and fits to an end of the third member which is arranged on the opposite side with respect to the first member.

25. The fuel filter according to claim 23, wherein, the first member and the second member are integrally formed.

26. The fuel filter according to claim 20, wherein the filter body includes:

an outer layer that is made of nonwoven fabric; and

an inner layer that is made of filter paper and is connected to the outer layer and forms an inside layer of the filter body to remove debris included in fuel.

27. The fuel filter according to claim 9, wherein, the filter body and the mounting unit are integrally formed.